

# Efficacy of a hypnosis-based intervention to improve well-being for prostate and breast cancer patients

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RESEARCH ARTICLE

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# Efficacy of a hypnosis-based intervention to improve well-being during cancer: a comparison between prostate and breast cancer patients

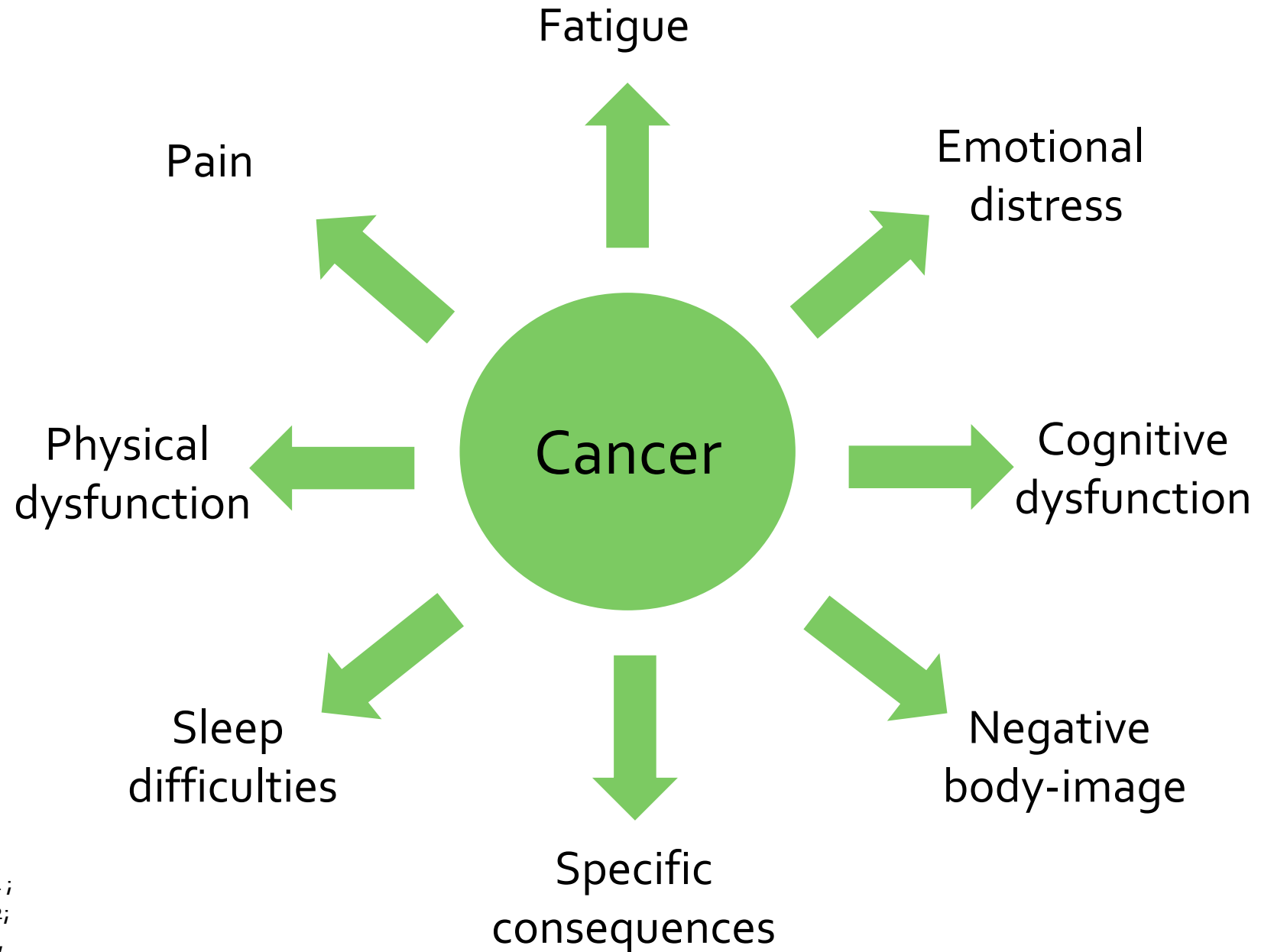


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# Introduction

	Breast cancer	Prostate cancer
<b>Frequency</b>	Most frequent, worldwide	Most frequent in males, in developed countries
<b>Mortality</b>	Leading cause of cancer deaths	2 <sup>nd</sup> leading cause of cancer deaths
<b>% of new cancer cases</b>	23%	14%
<b>% of cancer deaths</b>	14%	6%

# Introduction



# Introduction

Emotional distress  
(anxiety + depression)

Cancer-related  
fatigue (CRF)

Sleep  
difficulties



Prevalence +++

Severity +++

Underdiagnosed

Undertreated



Interventions are needed

# Introduction



**Cognitive-  
behavioural  
therapy (CBT)**

↓ anxiety  
↓ depression  
↓ sleep difficulties

**Hypnosis**

↓ anxiety  
↓ depression  
↓ sleep difficulties  
↓ fatigue

...

**Problem:**

**Focus on  
breast cancer**

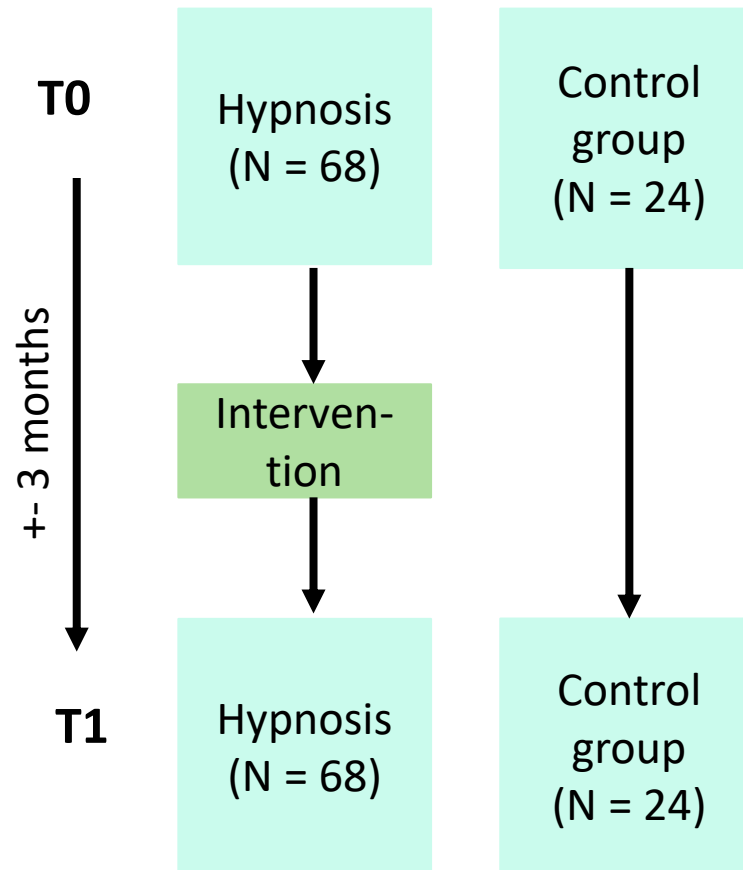
# Objective

Comparing the efficacy of a hypnosis-based group intervention to improve emotional distress, fatigue, sleep difficulties and quality of life in breast and prostate cancer patients

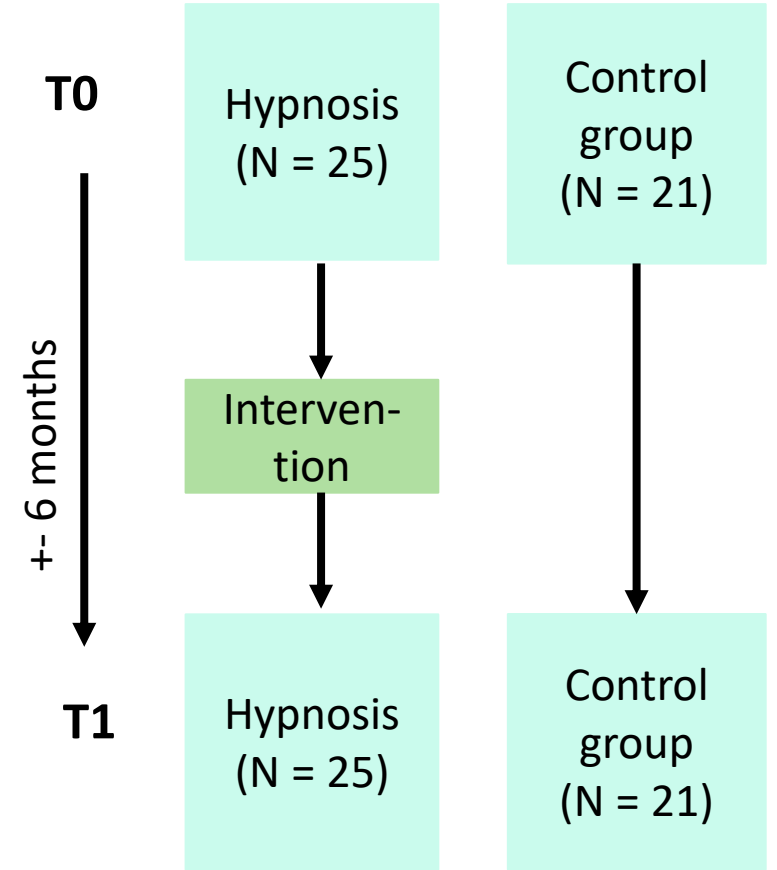
**Hypnosis:** 6 x 120 min. Self-care techniques + hypnosis exercises. Homework assignments + at-home practice (Faymonville et al., 2010).

# Design

## BREAST



## PROSTATE





# Methods

## Questionnaires:

- Demographics and medical history
- Emotional distress (Hospital Anxiety and Depression Scale)
- Fatigue & Global Health Status  
(European Organization for Research and Treatment of Cancer – Core Questionnaire)
- Sleep difficulties (Insomnia Severity Index)



# Results

**Breast cancer:** positive effects on :

- **Anxiety** ( $p = ,000$ )
- **Depression** ( $p = ,001$ )
- **Fatigue** ( $p = ,003$ )
- **Sleep difficulties** ( $p = ,018$ )
- **Global health status** ( $p = ,020$ )

**Prostate cancer:** No effect

**Control groups :** No effect

Why?

# Results

## Baseline differences between BC and PC patients:

- Psychological state & Sociodemographic data
  - BC > PC: Anxiety ( $p = ,048$ ); Fatigue ( $p = ,003$ ); Sleep difficulties ( $p = ,013$ )
  - PC > BC: Age ( $p = ,000$ )
- Treatments received:
  - BC: ongoing treatment; multimodal treatments
  - PC: off treatment; single treatment



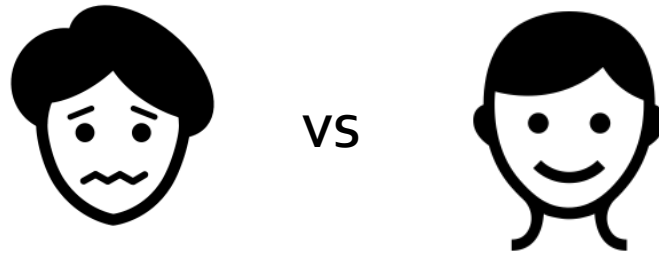
Possible explanation of our results

# Discussion

## Efficacy of the intervention: contrasted results

### Explanatory hypotheses:

- ✓ Baseline differences in patients' psychological state



- ✓ Format of the intervention



- ✓ Interest for the intervention



# Discussion

## Biases and limitations

- ✓ Small samples, with no a-priori sample size calculation
- ✓ Non-randomized design
- ✓ Baseline differences between BC and PC patients
- ✓ Format of the intervention

# Conclusion

## General conclusions

- Originality of the study
- Comparison between BC and PC patients
- Importance of the gender

## Research perspectives

- **Participants:** no baseline differences, emotional distress, treatment journey
- **Intervention:** same moment, same length
- **Evaluation:** randomized-controlled design

Thank you for your  
attention!

# References

- Alosaimi, F.D., Al-Sultan, O.A., Alghamdi, Q.A., Almohaimeed, I.K., and Alqannas, S.I. (2014). Gender-specific differences in depression and anxiety symptoms and help-seeking behavior among gastroenterology patients in Riyadh, Saudi Arabia. *Neurosciences (Riyadh)* 19, 203–209.
- Baade, P.D., Youlden, D.R., and Krnjacki, L.J. (2009). International epidemiology of prostate cancer: geographical distribution and secular trends. *Mol Nutr Food Res* 53, 171–184.
- Bhattacharjee, A., and Banerjee, A. (2016). State and trait anxiety among cancer patients: A comparative analysis. *Journal of Psychosocial Research* 11, 427–436.
- Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., and Neville, A.J. (2011). The Supportive Care Needs of Men With Advanced Prostate Cancer. *Oncology Nursing Forum* 38, 189–198.
- Clover, K.A., Mitchell, A.J., Britton, B., and Carter, G. (2015). Why do oncology outpatients who report emotional distress decline help? *Psychooncology* 24, 812–818.
- Cramer, H., Lauche, R., Paul, A., Langhorst, J., Kümmel, S., and Dobos, G.J. (2015). Hypnosis in breast cancer care: a systematic review of randomized controlled trials. *Integr Cancer Ther* 14, 5–15.
- Dauchy, S., Dolbeault, S., and Reich, M. (2013). Depression in cancer patients. *EJC Suppl* 11, 205–215.
- DeSantis, C., Ma, J., Bryan, L., and Jemal, A. (2014). Breast cancer statistics, 2013. *CA Cancer J Clin* 64, 52–62.
- Die Trill, M. (2013). Anxiety and sleep disorders in cancer patients. *EJC Suppl* 11, 216–224.
- Ewertz, M., and Jensen, A.B. (2011). Late effects of breast cancer treatment and potentials for rehabilitation. *Acta Oncol* 50, 187–193.
- Faller, H., Schuler, M., Richard, M., Heckl, U., Weis, J., and Küffner, R. (2013). Effects of psycho-oncologic interventions on emotional distress and quality of life in adult patients with cancer: systematic review and meta-analysis. *J. Clin. Oncol.* 31, 782–793.
- Fransson, P. (2010). Fatigue in prostate cancer patients treated with external beam radiotherapy: a prospective 5-year long-term patient-reported evaluation. *J Cancer Res Ther* 6, 516–520.
- Grégoire, C., Bragard, I., Jerusalem, G., Etienne, A.-M., Coucke, P., Dupuis, G., Lanctôt, D., and Faymonville, M.-E. (2017). Group interventions to reduce emotional distress and fatigue in breast cancer patients: a 9-month follow-up pragmatic trial. *British Journal of Cancer* 117, bjc2017326.
- Gudenkauf, L.M., Antoni, M.H., Stagl, J.M., Lechner, S.C., Jutagir, D.R., Bouchard, L.C., Blomberg, B.B., Glück, S., Derhagopian, R.P., Giron, G.L., et al. (2015). Brief cognitive-behavioral and relaxation training interventions for breast cancer: A randomized controlled trial. *J Consult Clin Psychol* 83, 677–688.
- Hammond, D.C. (2010). Hypnosis in the treatment of anxiety- and stress-related disorders. *Expert Rev Neurother* 10, 263–273.



# References

- Hutchinson, A.D., Hosking, J.R., Kichenadasse, G., Mattiske, J.K., and Wilson, C. (2012). Objective and subjective cognitive impairment following chemotherapy for cancer: a systematic review. *Cancer Treat. Rev.* 38, 926–934.
- Jemal, A., Bray, F., Center, M.M., Ferlay, J., Ward, E., and Forman, D. (2011). Global cancer statistics. *CA: A Cancer Journal for Clinicians* 61, 69–90.
- Jim, H.S.L., Phillips, K.M., Chait, S., Faul, L.A., Popa, M.A., Lee, Y.-H., Hussin, M.G., Jacobsen, P.B., and Small, B.J. (2012). Meta-analysis of cognitive functioning in breast cancer survivors previously treated with standard-dose chemotherapy. *J. Clin. Oncol.* 30, 3578–3587.
- Kanso, C., Etner, J., Debré, B., and Zerbib, M. (2012). Cancer de la prostate : aspects médicoéconomiques. *Progrès En Urologie* 85–90.
- Kibel, A.S., Ciezki, J.P., Klein, E.A., Reddy, C.A., Lubahn, J.D., Haslag-Minoff, J., Deasy, J.O., Michalski, J.M., Kallogjeri, D., Piccirillo, J.F., et al. (2012). Survival among men with clinically localized prostate cancer treated with radical prostatectomy or radiation therapy in the prostate specific antigen era. *J. Urol.* 187, 1259–1265.
- Kim, H.S., and Freedland, S.J. (2010). Androgen deprivation therapy in prostate cancer: anticipated side-effects and their management. *Curr Opin Support Palliat Care* 4, 147–152.
- Linden, W., Vodermaier, A., MacKenzie, R., and Greig, D. (2012). Anxiety and depression after cancer diagnosis: Prevalence rates by cancer type, gender, and age. *Journal of Affective Disorders* 141, 343–351.
- McGinty, H.L., Phillips, K.M., Jim, H.S.L., Cessna, J.M., Asvat, Y., Cases, M.G., Small, B.J., and Jacobsen, P.B. (2014). Cognitive functioning in men receiving androgen deprivation therapy for prostate cancer: a systematic review and meta-analysis. *Support Care Cancer* 22, 2271–2280.
- McLean, C.P., Asnaani, A., Litz, B.T., and Hofmann, S.G. (2011). Gender Differences in Anxiety Disorders: Prevalence, Course of Illness, Comorbidity and Burden of Illness. *J Psychiatr Res* 45, 1027–1035.
- Miaskowski, C., Paul, S.M., Cooper, B.A., Lee, K., Dodd, M., West, C., Aouizerat, B.E., Dunn, L., Swift, P.S., and Wara, W. (2011). Predictors of the trajectories of self-reported sleep disturbance in men with prostate cancer during and following radiation therapy. *Sleep* 34, 171–179.
- Mitchell, S.A., Hoffman, A.J., Clark, J.C., DeGennaro, R.M., Poirier, P., Robinson, C.B., and Weisbrod, B.L. (2014). Putting Evidence Into Practice: An Update of Evidence-Based Interventions for Cancer-Related Fatigue During and Following Treatment. *Clinical Journal of Oncology Nursing* 18, 38–58.

# References

- Mo, P.K.H., Malik, S.H., and Coulson, N.S. (2009). Gender differences in computer-mediated communication: a systematic literature review of online health-related support groups. *Patient Educ Couns* 75, 16–24.
- Montgomery, G.H., David, D., Kangas, M., Green, S., Sucala, M., Bovbjerg, D.H., Hallquist, M.N., and Schnur, J.B. (2014). Randomized Controlled Trial of a Cognitive-Behavioral Therapy Plus Hypnosis Intervention to Control Fatigue in Patients Undergoing Radiotherapy for Breast Cancer. *Journal of Clinical Oncology* 32, 557–563.
- Nekolaichuk, C.L., Cumming, C., Turner, J., Yushchyshyn, A., and Sela, R. (2011). Referral patterns and psychosocial distress in cancer patients accessing a psycho-oncology counseling service. *Psychooncology* 20, 326–332.
- Nolen-Hoeksema, S. (2001). Gender Differences in Depression. *Current Directions in Psychological Science* 10, 173–176.
- Selli, C., Bjartell, A., Burgos, J., Somerville, M., Palacios, J.-M., Benjamin, L., Black, L., and Castro, R. (2014). Burden of Illness in Prostate Cancer Patients with a Low-to-Moderate Risk of Progression: A One-Year, Pan-European Observational Study. *Prostate Cancer* 2014, e472949.
- Tang, Y., Yang, W., Wang, Y.-L., and Lin, L. (2012). Sex differences in the symptoms and psychological factors that influence quality of life in patients with irritable bowel syndrome. *Eur J Gastroenterol Hepatol* 24, 702–707.
- Tojal, C., and Costa, R. (2015). Depressive symptoms and mental adjustment in women with breast cancer. *Psychooncology* 24, 1060–1065.
- Vanhaudenhuyse, A., Jerusalem, G., Charland-Verville, V., and Faymonville, M.-E. (2017). Intérêt de l’hypnose en oncologie et dans la pratique de l’hépto-gastro-entérologue. *Hegel* 7, 101–102.
- Visser, A. (2013). Cancer in a Psychosomatic Perspective. In *Somatization and Psychosomatic Symptoms*, (Springer, New York, NY), pp. 225–238.
- de Vries, M., and Stiefel, F. (2014). Psycho-Oncological Interventions and Psychotherapy in the Oncology Setting. In *Psycho-Oncology*, U. Goerling, ed. (Berlin, Heidelberg: Springer Berlin Heidelberg), pp. 121–135.
- Weis, J., and Horneber, M. (2015). *Cancer-Related Fatigue* (Tarpoley: Springer Healthcare Ltd.).